

WHAT IS CLAIMED IS:

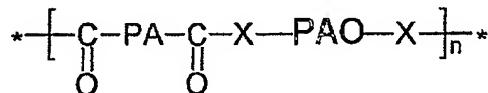
1. A composition comprising a polyamide matrix, characterized in that it comprises:
  - 5 - at least 2% by weight of electrically conductive fillers; and at least 1% by weight of antistatic agents; the percentages by weight being expressed with respect to the total weight of the composition.
- 10 2. The composition as claimed in claim 1, characterized in that it exhibits a surface resistivity of between  $10^5 \Omega$  and  $10^{11} \Omega$ , measured according to Standard IEC 61340-4-1.
- 15 3. The composition as claimed in either one of claims 1 and 2, characterized in that it exhibits a discharge time of greater than or equal to 10 seconds, measured according to Standard IEC 61340-5-1.
- 20 4. The composition as claimed in any one of claims 1 to 3, characterized in that it comprises from 2 to 50% by weight of electrically conductive fillers, with respect to the total weight of the composition.
- 25 5. The composition as claimed in any one of claims 1 to 4, characterized in that the electrically conductive fillers are chosen from the group consisting of: a carbon black, a metal, a graphite, a conductive polymer, a glass and/or an inorganic filler coated with a metal layer, and/or their mixture.
- 30 6. The composition as claimed in any one of claims 1 to 5, characterized in that it comprises from 2 to 10% by weight of carbon black as electrically

conductive fillers, with respect to the total weight of the composition.

5 7. The composition as claimed in any one of claims 1 to 6, characterized in that it comprises from 1 to 30% by weight of antistatic agents, with respect to the total weight of the composition.

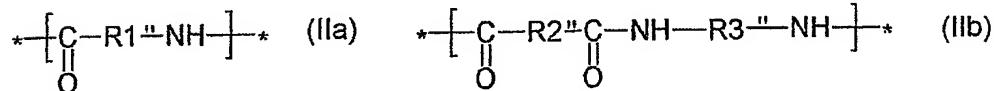
10 8. The composition as claimed in any one of claims 1 to 7, characterized in that the antistatic agents can be chosen from the group consisting of a polyetheramide, a sodium alkylsulfonate, an alkylbenzenesulfonate, primary, secondary or tertiary amines, an ethoxylated amine, an ethoxylated alcohol, glyceryl monostearates, distearates or tristearates, and their mixtures.

15 9. The composition as claimed in any one of claims 1 to 8, characterized in that the antistatic agent is a polyetheramide represented by the formula (I):



in which:

25 - n is an integer between 5 and 50;  
- X represents an oxygen atom or an NH group;  
- PAO represents a poly(alkylene oxide) block;  
- PA represents a polyamide block, the repeat  
unit of which is represented by either of the  
30 formulae (IIa) or (IIb):



in which:  $R^1$ ,  $R^2$  and  $R^3$  are aromatic or aliphatic radicals comprising 4 to 36 carbon atoms.

10. The composition as claimed in claim 9, characterized in that the radical R<sup>1</sup> is a linear divalent pentyl radical.
- 5 11. The composition as claimed in either one of claims 9 and 10, characterized in that the PAO block is a poly(ethylene oxide) block.
- 10 12. The composition as claimed in any one of claims 1 to 11, characterized in that the polyamide matrix according to the invention is composed of at least one (co)polyamide chosen from the group consisting of: (co)polyamide 6; 4; 11; 12; 4,6; 6,6; 6,9; 6,10; 6,12; 6,18; 6,36; 6(T); 9(T); 6(I); MXD6; 15 their copolymers and/or blends.
- 20 13. The composition as claimed in any one of claims 1 to 11, characterized in that the composition comprises at least one modifier of the impact strength chosen from the group consisting of: ethylene-propylene (EP) optionally grafted with maleic anhydride, ethylene-propylene-diene (EPDM) terpolymer optionally grafted with maleic anhydride, elastomeric copolymers, such as 25 styrene-maleic anhydride (SMA), ultra-low-density polyethylene (ULDPE), linear low density polyethylene (LLDPE), styrene-butadiene (SBS and SBR) compounds, styrene-ethylene-butadiene-styrene (SEBS) compounds, polypropylene (PP), acrylic elastomers (such as polyacrylate elastomers), 30 copolymers and terpolymers of ethylene with acrylic or methacrylic derivatives and/or with vinyl acetate, ionomers, acrylonitrile-butadiene-styrene (ABS) terpolymer and acrylic-styrene-acrylonitrile (ASA) terpolymer.
- 35 14. A process for the preparation of a polyamide composition as claimed in any one of claims 1 to 13, characterized in that at least 2% by weight of

electrically conductive fillers and at least 1% by weight of antistatic agents are blended with a polyamide matrix, optionally in the molten state.

5 15. A process for the preparation of a polyamide composition as claimed in any one of claims 1 to 13, characterized in that at least one polyamide matrix is blended with:

10 - a concentrated blend based on a thermoplastic matrix comprising at least 20% by weight of electrically conductive fillers, and

- at least 1% by weight of antistatic agents.

15 16. The process as claimed in claim 15, characterized in that the thermoplastic matrix is chosen from the group consisting of: the (co)polyamide, ethylene-vinyl acetate (EVA) copolymer, ethylene-acrylic acid (EAA), polyethylene (PE), polypropylene (PP), their copolymers and/or blends.

20 17. A process for the manufacture of an article by forming a composition as claimed in any one of claims 1 to 13 by a process chosen from the group consisting of an extrusion process, a molding process and an injection process.

25 18. An article obtained by forming a composition as claimed in any one of claims 1 to 13.

30 19. The article as claimed in claim 18, characterized in that it is painted by a process for the application of paint by electrostatic deposition.